IN THE CLAIMS:

1-12. (Cancelled)

13. (Currently amended): A method for detecting a single nucleotide polymorphism comprising:

a) providing at least one primer pair, said primer pair containing a reverse primer and a forward primer comprising a 3' end specific for an allele of a single nucleotide polymorphism of interest and a hybridization tag that identifies the primer, said hybridization tag not complementary to the sequence containing said single nucleotide polymorphism of interest;

b) combining said at least one primer pair with a sample containing single-stranded polynucleotides under stringent conditions which allow hybridization of said primers to complementary sequences in said single-stranded polynucleotides;

c) extending hybridized primers by primer extension to produce ~~an~~ extension products wherein said extension products comprise[[s]] said hybridization tag and a hybridization tag complement, and a detectable label;

d) hybridizing said extension products by said hybridization tag or the hybridization tag complement under stringent conditions to a combination of capture probes complementary to both the hybridization tag and the hybridization tag complement, wherein said capture probes are ~~is~~ coupled to a microbead, said microbead identifying said capture probes;

e) detecting by flow cytometry the hybridization of said extension product to said capture probe by the presence of said detectable label; and

f) determining the identity of said single nucleotide polymorphism based on the identity of said microbead.

14. (Original): The method of claim 13, wherein said reverse primer comprises said detectable label.

15. (Original): The method of claim 14, wherein said reverse primer pair is a universal reverse primer.

16. (Original): The method of claim 13, wherein c) is repeated at least once.

17. (Original): The method of claim 13, wherein said at least one primer pair comprises a plurality of primer pairs specific for a plurality of single nucleotide polymorphisms.

18. (Cancelled)

19. (Original): A method for diagnosing a disease, condition, disorder or predisposition in a subject comprising, obtaining a biological sample containing at least one polynucleotide from said subject and analyzing said at least one polynucleotide to detect the presence or absence of a single nucleotide polymorphism by the method of claim 13, wherein said single nucleotide polymorphism is associated with a disease, condition, disorder or predisposition.

20. (Currently amended): A method for detecting a single nucleotide polymorphism comprising:

a) providing at least one group of at least 2 primers in each group, wherein each primer in said group comprises a hybridization tag that identifies said primer, and each primer in said group having a 3' end specific for a different allele of a single nucleotide polymorphism of interest;

b) combining said at least one group of primers with a sample containing single-stranded polynucleotides under stringent conditions which allow hybridization of said primers to complementary sequences in said single-stranded polynucleotides;

c) extending hybridized primers by multi-base primer extension to produce an extension product, said extension product comprising said hybridization tag and a detectable label;

d) hybridizing said extension product by said hybridization tag under stringent conditions to a capture probe, said capture probe is coupled to a fluorescent microbead that identifies said capture probe;

e) detecting by flow cytometry the hybridization of said extension product to said capture probe using said detectable label; and

f) determining the identity of said single nucleotide polymorphism based on the identity of said microbead.

21. (Cancelled)

22. (Cancelled)

23. (Previously presented): The method of claim 20 further comprising a plurality of said primer groups, each primer group specific for a different single nucleotide polymorphism of interest.

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Original): A method for diagnosing a disease, condition, disorder or predisposition in a subject comprising, obtaining a biological sample containing at least one polynucleotide from said subject and analyzing said at least one polynucleotide to detect the presence or absence of a single nucleotide polymorphism by the method of claim 20, wherein said single nucleotide polymorphism is associated with a disease, condition, disorder or predisposition.

32-35. (Cancelled)

36. (Cancelled)